What is claimed is:

1. A method for allocating a dedicated channel for transmitting a packet at a code division multiple access (CDMA) media access control (MAC) layer control unit to transmit a packet data between a mobile station (MS) and a base station (BS) in a CDMA mobile communication system including the MS and the BS, the method comprising the steps of:

a) when the packet is generated, by a MAC layer control unit of the MS, determining a service option of the packet;

b) if the service option of the packet is link-oriented, by the MAC layer control unit of the MS, requesting to allocate a dedicated control channel (DCCH) and receiving the DCCH;

c) by the MAC layer control unit of the MS, requesting to allocate a dedicated traffic channel (DTCH) and receiving the DTCH; and

d) by the MAC layer control unit of the MS, transmitting the packet via the DTCH.

2. The method as recited in claim 1, wherein the MAC layer control unit of the MS is transited to a suspended state, before determining the service option of the packet.

3. The method as recited in claim 1, wherein the MAC layer control unit of the MS requests a MAC layer control unit

of the BS to allocate the DCCH.

4. The method as recited in claim 1, wherein the step c) includes the steps of:

c1) if the DCCH is allocated before a suspended state timer is expired, transiting the MAC layer control unit of the MS to a control hold state; and

c2) requesting the MAC layer control unit of the BS to allocate the DTCH.

5. The method as recited in claim 1, wherein the step d) includes the step of:

d1) if the DTCH is allocated before a control hold state timer is expired, transiting the MAC layer control unit of the MS to an active state before transmitting the packet via the DTCH;

d2) transmitting the packet, before an active state timer is expired; and

d3) after the active state timer is expired, transiting the MAC layer control unit of the MS to the control hold state.

6. The method as recited in claim 1, wherein step b) further includes the step of:

e) if the service option of the packet is unlink-oriented, transmitting the packet via a common traffic channel (CTCH) that is randomly connected to.

7. The method as recited 5, wherein step d) further includes the step of:

d4) if the DTCH is not allocated before a control hold state timer is expired, transiting the MAC layer control unit of the MS to the suspended state or back to the control hold state.

8. The method as recited claim 7, wherein a probability of transiting to the suspended state equals $(1-\mu_D)/T_c$ and a probability of transiting back to the control hold state equals $(1-\mu_D)(1-(1/T_c))$ where the μ_D denotes a request rate of the DTCH and T_c denotes a control hold state timer value.

9. The method as recited in claim 4, wherein step c) further includes the step of:

d3) if the DCCH is not allocated before a suspended state timer is expired, transiting the MAC layer control unit of the MS to a dormant state or back to the suspended state.

10. The method as recited in claim 9, wherein a probability of transiting to the dormant state equals $(1-\lambda_D)/T_s$ and a probability of transiting back to the suspended state equals $(1-\lambda_D)(1-(1/T_s))$ where the λ_D denotes a request rate of the DCCH and T_s denotes a suspended state timer value.